

### ABSTRACT

The invention provides an apparatus and method for testing the tensile load bearing properties of a sample of uncured prepreg composite material. The apparatus includes a housing comprising an internal cavity for receiving a sample to be tested. It also has a bladder and a block located at least partially within the housing such that inflating the bladder applies pressure to the prepreg sample by urging the block into the sample cavity, against the sample. In addition, the apparatus includes a heater for applying controlled heat to the sample and thermocouples for measuring sample temperature. Ends of the sample prepreg are accessible to jaws of a tensile load testing machine, and load is applied when the desired temperature and pressure are obtained.